Vol. 84

Acknowledgements:

C. W. Benson for advice and the loan of his notes; R. M. MacGinty, my colleague, for guidance in statistics; Mrs. B. P. Hall, M. P. S. Irwin and Herr G. Mauersberger for answering questions on specimens in their care; the following curators provided me with measurements of specimens in their care: J. Bond (Philadelphia); M. Courtney-Latimer (East London); M. G. Guerreiro (Lourenco Marques); W. J. Lawson (Durban); R. Liversidge (Port Elizabeth); G. Mauersberger (Berlin); C. O'Brien (New York); K. C. Parkes (Pittsburgh); R. A. Paynter (Harvard); O. P. M. Prozesky (Pretoria); M. A. Traylor (Chicago); G. E. Watson (Washington): J. G. Williams (Nairobi): J. M. Winterbottom (Cape Town).

References:

Amadon, D. (1949). The seventy-five per cent rule for subspecies. Condor 51: 250–258. Chapin, J. P. (1939). The Birds of the Belgian Congo II: 452–454.

Cumming, R. S. (1952). A review of the migratory tendencies of Apus caffer caffer Licht. the Cape White-rumped Swift. Ostrich XXIII: 2: 116-119.

Finsch, O. (1870). On a collection of birds from North-Eastern Abyssinia and the Bogos Country. With notes by the collector, William Jesse, C.M.Z.S., zoologist to the Abyssinian expedition. *Trans. Zool. Soc.* VII: IV: 197-331.

Hoesch, W. & Niethammer, G. (1940). Die Vogelwelt Deutsch-Sudwestafrikas. Sonderheft Journ. f. Orn. p. 204. Ogilvie-Grant, W. R. (1908). On a collection of birds made by Mr. Douglas Car-

ruthers during his journey from Uganda to the mouth of the Congo. Ibis 9: II: 6: 264-317.

Sclater, W. L. (1924). Systema Avium Aethiopicarum I: 260. Stoneham, H. F. (1926). Field notes on a collection of birds from Uganda. Ibis XII: II: 26-91.

Traylor, M. G. (1960). Pub. Cult. Comp. Diam. Ang. 51: 157.

A new race of Estrilda atricapilla Verreaux

by Melvin A. Traylor

Received 29th November, 1963

Two races of Estrilda atricapilla have generally been recognized, nominate atricapilla ranging from Gabon and Cameroon to the lowlands of the eastern Congo and Kasai, and graueri ranging from the highlands of the eastern Congo to the Kenya highlands. However, Mackworth-Praed and Grant (1955, Hdbk. Birds E. and N.E. Afr., 2: 1028) extend graueri to the Congo lowlands, southwest to Kasai. Examination of series from the whole range of the species shows that there are actually two races now included in nominate atricapilla, birds from the eastern Congo lowlands agreeing with atricapilla in some characters and graueri in others. I propose to name this new race:

Estrilda atricapilla avakubi subsp. nov.

Type: adult & from Avakubi, Ituri district, Congo, collected 8th December 1909 by James P. Chapin; collector's number 511. American Museum of Natural History number 162543.

Diagnosis: Differs from atricapilla by being generally paler, particularly on the cheeks and throat which are whitish rather than grey; barring on the back more broadly spaced, the black bars being more prominent because of the paler grey background. Differs from graueri in the much more broadly spaced dorsal barring, and in the brighter red rump and upper tail-coverts; slightly larger in wing length.

Measurements of type: wing 48; tail 45; tarsus 15; bill 10.

Range: Lowlands of the eastern Congo from Tshuapa and Ituri districts south to Kasai, and extreme northeast Angola.

Remarks: The eastern race *graueri* resembles *atricapilla* of West Africa more nearly than it does the intervening *avakubi*. Both are finely barred above, but *graueri* is paler on cheeks and throat than *atricapilla*, and rump and upper tail-coverts are a darker red. There seems to be a real gap between the ranges of *atricapilla* and *avakubi*, for the species is not known from along the middle Congo River or in Moyen Congo.

Variation in size is not great. Within *atricapilla* Gabon birds are smaller than those from Cameroon; *avakubi* is similar to the Cameroon populations, and *graueri* is somewhat smaller. Comparative wing measurements are:

			55	<u> </u>
atricapilla-	–Gabon	(5)	45-47 (45.8)	45, 45, 47
	Cameroon	(7)	47-49 (47.7) (8)	46-47 (46.6)
avakubi		(4)	47-48 (47.5)	46, 47
graueri			45, 46	

Some observations of bird behaviour made from an aircraft in the Serengeti National Park

by M. I. M. TURNER

Received 3rd December, 1964

The Tanganyika National Parks are among the foremost users of light aircraft in game management work in Africa, and the following notes are drawn from over 700 hours flying experience in the Serengeti National Park during the years 1961–1963 while on normal Game and Administrative duties.

Undoubtedly among the greatest hazards to aerial work over the game areas in Africa are the great birds of prey, and, here in the Serengeti with its estimated 1,000,000 head of ungulates, the concentration of vultures and eagles is very large. Six species of vulture exist in the Park as follows: Rüppell's Griffon (*Gyps rüppellii*), White-backed Vulture (*Pseudogyps africanus*), Lappet-faced Vulture (*Torgos tracheliotus*), White-headed Vulture (Trigonoceps occipitalis), Egyptian Vulture (Neophron percnopterus) and Hooded Vulture (Necrosyrtes monachus). These great birds, weighing 12-15 lbs., can be encountered at any altitude between ground level and as high as 12,000 ft., and are ever in attendance on the great migratory concentrations of wildebeeste and zebra throughout the Park. Vultures are poor fliers and rely in Africa almost entirely on ascending thermal currents to gain height to carry out their daily patrolling, ever searching for dead and dying animals. In the mountainous areas of the Ngorongoro highlands adjoining the South East boundary of the Serengeti, the high winds are used by vultures to the same effect. In the early morning or late evening most of the larger birds of prey are effectively grounded by the thinner, cooler air. In the dry weather and in open country, vultures